

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims

1-10 (Canceled)

11. (Currently Amended) A fluid apparatus for producing hydrogen-containing gas, the apparatus having a plurality of processing spaces, the apparatus comprising:

a plurality of containers juxtaposed in a direction to each other and respectively forming the processing space therein;

pressing means for pressing the containers as juxtaposed from opposed sides thereof in the juxtaposing direction of the containers;

wherein each said container includes a pair of container-forming members disposed in the juxtaposing direction and having peripheral portions thereof joined and welded to each other; and

at least one of the pair of container-forming members is in the form of a dish-likedish-shaped member having a peripheral portion used as a joining margin and a bulging central portion.

12. (Currently Amended) A fluid processing apparatus for producing hydrogen-containing gas, the apparatus having a plurality of processing spaces, the apparatus comprising:

a plurality of containers juxtaposed in a direction to each other and respectively forming the processing space respectively therein;

pressing means for pressing the containers as juxtaposed from opposed sides thereof in the juxtaposing direction of the containers;

wherein each said container includes a pair of container-forming members disposed in the juxtaposing direction and having peripheral portions thereof joined and welded to each other; and

at least one of the pair of container-forming members is in the form of a ~~dish-like~~dish-shaped member formed by press-forming a plate material and having a peripheral portion used as a joining margin and a bulging central portion.

13. (Currently Amended) The fluid processing apparatus for producing hydrogen-containing gas as defined in claim 11, wherein some or all of the plurality of containers each includes a pair of the ~~dish-like~~dish-shaped container-forming members joined and welded together with a planar ~~plate-like~~plate-shaped partitioning member interposed therebetween for forming two processing spaces.

14. (Currently Amended) The fluid processing apparatus for producing hydrogen-containing gas as defined in claim 12, wherein at least some of the plurality of containers each includes a pair of the ~~dish-like~~dish-shaped container-forming members joined and welded together with a planar ~~plate-like~~plate-shaped partitioning member interposed therebetween for forming two processing spaces.

15. (Previously Presented) The fluid processing apparatus as defined in claim 11, wherein the plurality of containers are disposed such that some of them requiring heat transfer therebetween are disposed in close contact with the other and others of them requiring adjustment in the amount of heat transferred therebetween are disposed with an insulating material for heat transfer adjustment being interposed therebetween.

16. (Previously Presented) The fluid processing apparatus as defined in claim 12, wherein the plurality of containers are disposed such that some of them requiring heat transfer therebetween are disposed in close contact with the other and others of them requiring adjustment in the amount of heat transferred therebetween are disposed with an insulating material for heat transfer adjustment being interposed therebetween.

17. (Previously Presented) The fluid processing apparatus as defined in claim 13, wherein the plurality of containers are disposed such that some of them requiring heat transfer therebetween are disposed in close contact with the other and others of them

requiring adjustment in the amount of heat transferred therebetween are disposed with an insulating material for heat transfer adjustment being interposed therebetween.

18. (Previously Presented) The fluid processing apparatus as defined in claim 14, wherein the plurality of containers are disposed such that some of them requiring heat transfer therebetween are disposed in close contact with the other and others of them requiring adjustment in the amount of heat transferred therebetween are disposed with an insulating material for heat transfer adjustment being interposed therebetween.

19. (Previously Presented) The fluid processing apparatus for producing hydrogen-containing gas as defined in claim 11, wherein at least one of the processing spaces is charged with reforming reaction catalyst to act as a reforming reaction unit for effecting a reforming process in which a hydrocarbon raw fuel gas is reformed, by using water vapor, into hydrogen gas and carbon monoxide gas and at least another of the processing spaces is charged with metamorphic reaction catalyst to act as a metamorphic reaction unit for effecting a metamorphic process in which the carbon monoxide gas is metamorphosed, by using water vapor, into carbon dioxide gas, whereby the raw fuel gas is supplied to the reforming reaction unit to be reformed therein and the resultant reformed gas is supplied to the metamorphic reaction unit to be metamorphosed therein, so that the hydrogen-containing gas is produced by the apparatus.

20. (Previously Presented) The fluid processing apparatus for producing hydrogen-containing gas as defined in claim 19, wherein a processing space adjacent said reforming reaction unit is constructed as a combustion reaction unit for combusting fuel gas for heating the reforming reaction unit;

one of an adjacent pair of processing spaces is constructed as a water-vapor generating unit for generating water fed thereto and the other is constructed as a heating-fluid passage unit for passing exhaust fuel gas discharged from the combustion reaction unit to heat the water-vapor generating unit;

a processing space adjacent said metamorphic reaction unit is constructed as a cooling-fluid passage unit for passing the exhaust fuel gas discharged from the heating-fluid passage unit so as to cool the metamorphic reaction unit; and

the water vapor generated at said water-vapor generating unit is supplied to the reforming reaction unit to be used in the reforming reaction therein.

21. (Previously Presented) The fluid processing apparatus for producing hydrogen-containing gas as defined in claim 12, wherein at least one of the processing spaces is charged with reforming reaction catalyst to act as a reforming reaction unit for effecting a reforming process in which a hydrocarbon raw fuel gas is reformed, by using water vapor, into hydrogen gas and carbon monoxide gas and at least another of the processing spaces is charged with metamorphic reaction catalyst to act as a metamorphic reaction unit for effecting a metamorphic process in which the carbon monoxide gas is metamorphosed, by using water vapor, into carbon dioxide gas, whereby the raw fuel gas is supplied to the reforming reaction unit to be reformed therein and the resultant reformed gas is supplied to the metamorphic reaction unit to be metamorphosed therein, so that the hydrogen-containing gas is produced by the apparatus.

22. (Previously Presented) The fluid processing apparatus for producing hydrogen-containing gas as defined in claim 21, wherein a processing space adjacent said reforming reaction unit is constructed as a combustion reaction unit for combusting fuel gas for heating the reforming reaction unit;

one of an adjacent pair of processing spaces is constructed as a water-vapor generating unit for generating water fed thereto and the other is constructed as a heating-fluid passage unit for passing exhaust fuel gas discharged from the combustion reaction unit to heat the water-vapor generating unit;

a processing space adjacent said metamorphic reaction unit is constructed as a cooling-fluid passage unit for passing the exhaust fuel gas discharged from the heating-fluid passage unit so as to cool the metamorphic reaction unit; and

the water vapor generated at said water-vapor generating unit is supplied to the reforming reaction unit to be used in the reforming reaction therein.